Adolescent Assertiveness Assessment Scale: Evidence of Content Validity

Sara Luize Pereira de Lima[1] ⓘ, Shirley de Souza Silva Simeão[1] ⓘ,
Washington Allysson Dantas Silva[2] ⓘ, & Melyssa Kellyane Cavalcanti Galdino[1] ⓘ

[1]_Universidade Federal da Paraíba, João Pessoa, PB, Brasil_
[2]_Instituto de Ciências Sociais, Universidade de Lisboa, Lisboa, Portugal_

ABSTRACT – This study aimed to present the process of elaborating the Adolescent Assertiveness Assessment Scale (AAA-S). Based on the analysis of judges, evidence of the validity of the content of the instrument was established, assessing the criteria of relevance, pertinence, and clarity of the items. In addition, a study with a sample of the instrument's target population showed good indices for the comprehensibility of the items (semantic validity). Based on these results, the illustrated version of the instrument was elaborated, which underpins the general scope of the psychometric study on the construct validity and accuracy of AAA-S and sheds light on the development of new studies on the factorial validity of the instrument.

KEYWORDS: assertiveness, adolescent, content validity

Escala de Habilidades Assertivas para Adolescentes: Evidências de Validade de Conteúdo

RESUMO – O objetivo deste estudo foi apresentar o processo de elaboração da escala de avaliação das Habilidades Assertivas para Adolescentes (EHA-A). A partir da análise de juízes foi possível observar evidências de validade de conteúdo do instrumento, sendo avaliados critérios de pertinência, relevância e clareza dos itens. Além disso, um estudo com uma amostra da população-alvo do instrumento demonstrou bons índices de compreensibilidade dos itens (validade semântica). A partir desses resultados, foi elaborada a versão ilustrada do instrumento, a qual corrobora com o escopo geral da investigação psicométrica acerca da validade de construto e da precisão da EHA-A, lançando luz para o desenvolvimento de novos estudos acerca da validade fatorial do instrumento.

PALAVRAS-CHAVE: assertividade, adolescente, evidências de validade

Adolescence is a period of multiple changes, both physical, psychological, and emotional, in which young people's social sensitivities and emotional states increase (Assumpção et al., 2017; Sartes & Araujo, 2017). Strasburger et al. (2009) note that adolescents must make difficult decisions regarding a range of dangerous behaviors such as smoking, drug use, and sexual activity and that during this developmental phase, emotional influences can lead to mood swings and instability, as well as emotional aggravation.

Given the numerous challenges in this developmental phase, adolescence is considered a critical phase in which, according to Del Prette et al. (2015), it is necessary to expand the repertoire of interpersonal relationships to meet the specific demands of the phase and to respond appropriately to the demands of the environment. Thus, deficits in social skills (SS) in this public can be a risk factor for substance abuse and other problems, and SS is a predictor of psychological well-being in adolescence (Aliane et al., 2006; Luz et al., 2015; Vagos, 2010).

SS is related to a repertoire of behaviors that facilitate successful interpersonal interactions, one of the main classes being assertiveness (Del Prette & Del Prette, 2009; Tomas & Carvalho, 2014). Originally, assertive behavior was defined as behavior that enables the person to act in their

own best interests, to assert themselves without excessive fear, to express sincere feelings without embarrassment, or to exercise their rights without disadvantaging others (Alberti & Emmons, 1970/1978).

In this sense, the concept of assertiveness goes back to the idea that a person can defend his or her rights and express thoughts, feelings, and beliefs honestly, directly, and appropriately without violating the rights of the other person (Lange & Jakubowski, 1976). One of the most widely accepted concepts of assertiveness at present is that of Del Prette and Del Prette (2005, p. 175), who defines assertiveness as "a class of social coping skills in situations involving the risk of an unwanted response from the interlocutor, with anxiety control and appropriate expression of feelings, desires, and opinions".

Assertiveness is considered a component of SS that is divided into eight subclasses of assertive social skills. Each subclass derives from a set of behaviors that are considered socially assertive, namely: expressing an opinion, agreeing, disagreeing; making, accepting, and refusing requests; apologizing, admitting mistakes; interacting with authority; establishing an affective and/or sexual relationship; ending a relationship; expressing anger/displeasure and asking for a behavior change; and dealing with criticism (Del Prette et al., 2017). These subclasses show the extent to which assertiveness has a major impact on young people's lives.

Assertive behaviors are often compared to aggressive and passive behaviors. The latter are behaviors that are common in adolescence and can be harmful to interpersonal relationships and adolescent development, as it is a stage that involves choices, decisions, goals, and relationships. Assertive behaviors have a protective effect, while aggressive/passive behaviors can lead to adolescents being placed in situations of vulnerability (Marchezini-Cunha & Tourinho, 2010; Véronneau et al., 2014).

In this vein, individuals with an aggressive behavioral style tend to express themselves rudely and usually do not respect the opinions of others, which can offend their peers. Passive individuals, on the other hand, have difficulty making decisions and therefore avoid any confrontation and usually feel guilty, angry, and inferior (Brandão & Derdyk, 2007).

Studies show that undesirable social behaviors (aggressive or passive) are generally associated with problematic behaviors and mental disorders (Campos et al., 2014). In a comparative table between assertive, aggressive, and passive behaviors, Del Prette and Del Prette (2009) note, among other things, that assertive behaviors involve seeking goals, maintaining relationships, evaluating one's behaviors, and seeking approval without hurting others. With undesirable behaviors, there is inhibition in expressing feelings, and when they are expressed, it is usually in an inappropriate manner, they also have difficulty in achieving their goals, and generally there is impairment in the relationship.

Assertiveness has been assessed through both assertiveness training programs and self-assessment instruments.

Assertiveness training is an effective mechanism for preventing and maintaining adolescent mental health. For example, the results of Eslami et al.'s (2016) study showed that assertiveness training with Iranian adolescents led to reductions in their anxiety, stress, and depression scores. Studies conducted in the Brazilian context are along the same lines. They have shown that assertiveness training also favors a more satisfactory development of other socio-emotional skills (e.g., Lima & Carvalho, 2020; Maia & Bortolini, 2012) and acts as a protective factor for human development.

Regarding the assessment of assertiveness through self-assessment, it was found that few specific instruments are available to assess assertiveness in adolescents. In the review conducted by Tallamini et al. (2022) on the training of SS in the school context, it was found that the studies published in the national context mostly showed a small diversity in the use of social skills assessment instruments, with the vast majority focusing on examining negative aspects of SS (e.g., school problems). These results indicate the agenda for the need to develop an instrument specific to the Brazilian social reality that can be used both in the individual assessment of adolescents and in the analysis of the effectiveness of assertive intervention programs.

Against this background, assertiveness is very important for the development of healthy and lasting relationships and contributes to good performance in interpersonal relationships. According to Neto and Savoia (2007), the assertive person solves their problems more easily and as a result has less stress, better quality of life, and better health.

Martins (2017) states that the lack of the ability to affirm oneself and respond assertively is responsible for the occurrence of negative emotions such as anger, frustration, anxiety, and restlessness in interpersonal relationships. In a correlational study of 535 Mexican adolescents aged 11 to 17, a negative and statistically significant relationship was found between an indicator of assertiveness and an indicator of anxiety. This suggests that young people who engage in aggressive behaviors have higher levels of anxiety (González Fragoso et al., 2018). In another study, which focused on assertive social skills (Fernandes et al., 2012), a link was found between deficits in social skills and depression, regarding deficits in assertiveness in patients who had a depressive state.

According to Silva and Murta (2009), social skills behaviors can prevent health risk behaviors by enabling adolescents to make their own decisions, refuse invitations that are harmful to their health, and resist group pressure in times of stress. The growing number of adolescents with poor mental health associated with low assertiveness demonstrates the need for assertiveness training as a protective factor that favors building and maintaining bonds of friendship, strengthening a sense of identity, and seeking personal and professional resources (Murta & Marinho, 2009).

The challenge concerning adolescents is to give them freedom of action and guidance so that the choices they

make lead to a healthier lifestyle rather than a dangerous one because by adopting a self-assertive attitude, the person develops mature and productive relationships in the professional and family environment and also in everyday situations (Martins, 2017; Strasburger et al., 2009). Given the importance of assertiveness to the adolescent public, we wondered how to validly and accurately measure this construct in the adolescent period. Since, according to Simeão et al. (2021), a lack of specific assertiveness assessment instruments aimed at the target group has been identified, we focused the objective of this study on the construction of an instrument to assess assertiveness in adolescence, guiding the scale development aspects and the initial assessment of the content validity of the proposed items.

Among the few instruments adapted to the Brazilian context (Reppold et al., 2017) that were identified as possibilities for assessing the construct of assertiveness are the Rathus Assertiveness Scale (RAS), the *Inventário de Habilidades Sociais para Adolescentes* (IHSA) and the Matson Scale of Social Skills for Adolescents (MESSY) (Simeão et al., 2021). These findings point to the need to develop a specific instrument to assess adolescents' assertiveness skills that consider written and illustrated language, as the interrelation between them may constitute elements that favor a more meaningful and favorable response in the effective reading of the items that compose the scale (Vasconcelos, 2014), in addition to a format that is attractive to the target audience,

In this research program, two studies were carried out to develop an Adolescent Assertiveness Assessment Scale (AAA-S). Study 1 consisted of developing the items and collecting the evidence for the content and semantic validity of the AAA-S, while Study 2 consisted of planning and elaborating the illustrated version of the proposed instrument.

STUDY 1: CONSTRUCTING AND PROVING THE SEMANTIC AND CONTENT VALIDITY OF AAA-S

Step 1: Development of the AAA-S Items

The process of elaborating the items of AAA-S began by conducting an exploratory study of a qualitative nature using the focus group technique, which aimed to learn about young people's perceptions of assertiveness skills and to identify the situations in which said skills are needed by the public in question. The focus group technique was chosen because it provides access to information about a particular phenomenon/topic through a space for discussion and sharing of experiences, stimulates debate, and encourages problematization of the topic under discussion, thus enabling the exploration of ideas critically and creatively (Backes et al., 2011; Trad, 2009).

Participants

The group consisted of 14 adolescents, aged between 12 and 15 years, who applied to participate in the university extension activity *INTERAÇÕES: Desenvolvendo Habilidades Sociais na Adolescência* (Interactions: Developing Social Abilities in Adolescence), developed at the Federal University of Paraíba (UFPB), in September 2019.

Procedures

For the construction of the AAA-S instrument, several steps were carried out, which are summarized in a broad research project submitted and approved by the authors' institutional Research Ethics Committee under Protocol No. 25089419.70000.5188.

Once approved, two meetings were held with an average duration of 90 minutes to gather information through group interactions and to capture adolescents' perceptions/representations of their assertiveness skills.

The location chosen to conduct the focus group was the group activities room in the university's psychology department, as this space was deemed suitable to accommodate the predicted number of participants and facilitators, as well as being an environment with less likelihood of interruptions. Participants were comfortably accommodated and arranged circularly to facilitate visual contact and encourage interaction between them.

The sessions were recorded, and the content of the recording was analyzed using the technique of content analysis (Bardin, 1977). For the construction of the items, the content of everyday situations brought by the young people was observed, in which they expressed their understanding of assertiveness and presented everyday situations in which they identified that this skill was needed.

In terms of equipment, a notebook and data display were used to project stimuli (pictures/descriptions of situations) to guide the discussion. Besides, with the permission of the group participants and their facilitators, the audiovisual sessions were recorded with a camera to facilitate the process of transcription and analysis of important elements in the interaction and implementation of the proposed activities.

Based on the reflections and interactions of the group participants and taking into account the operational definition of assertiveness and its subclasses proposed in the literature

(Del Prette & Del Prette, 2017), the formulation of items integrating the first version of the AAA-S, consisting of 80 items whose content included different situations representative of the subclasses of assertiveness, was proposed in the context of adolescence.

The proposed version of the AAA-S was analyzed for its theoretical underpinnings and the available empirical evidence (content validity and semantic validity) and then structured into a four-point Likert format ranging from 1 (*never* or *rarely*) to 4 (*always/almost always*) so that the assertiveness index was determined by the average of the items' scores. After structuring the scale, the next step was to determine the empirical evidence for the preliminary version of AAA-S to identify the need for possible semantic adjustments.

Step 2: Evidence of Content Validity

According to Hutz et al. (2015), content validity is evidence of an instrument's validity that can be obtained from analyzing the relationship between the content of the test and the construct it is intended to measure. Specifically, this analysis observes how important each item is in covering the operational definition of the construct from the perspective of a group of expert raters (e.g. specialists in the field in which the measure is proposed). Thus, it is required that the specialists assess the extent to which each item covers the definition of the construct. The greater the agreement of the experts on the essentiality of the item, the greater the evidence of content validity of the items and the scale in general. Therefore, we requested that the 80 proposed items be rated by judges (expert analysis) who are specialists in the field of psychological assessment and/or social skills. In doing so, they should consider the criteria of relevance, pertinence, and clarity for assessing the quality of the items and also check the degree of agreement between judges for each item and for the scale, in general, the content validity coefficient (CVC).

Participants

The panel of experts was composed of 4 psychology professionals who are specialists in the field of social skills and have experience in the development of psychological instruments.

Instruments

The panel of experts received the original version of the scale in a table with fields for rating the agreement concerning the relevance, pertinence, and clarity of the items, using a 4-point Likert scale ranging from 1 (*no quality*) to 4 (*absolute quality*).

Data Analysis

An inter-judge agreement was analyzed using the coefficient of content validity (CVC). The coefficient for content validity is calculated at different levels, considering inter-judge agreement for each item, for the overall scale, and for each judge's assessment of the quality of the instrument in general. The criterion used for content validity has values of CVC ≥ .80 (Aiken, 1985).

Results

Considering the aspects assessed (relevance, pertinence, and clarity), as well as the scores given by the expert judges when assessing each item of the scale in its original version, the CVC_t was .97. And the CVC_i coefficient was > .80, with the overall average ranging from .92 to .99 for each judge's assessment. This means that all judges rated the scale as being of good quality in their ratings.

After the analysis, taking into account the evaluation criteria, the items with the highest agreement rates, the greatest clarity, and the greatest objectivity were selected to create a refined version of the instrument, reducing the number of items but without losing the effectiveness of what is being measured; however, based on the following criteria: Selection of the best quality indices (CVC_i); attention to the average number of items for a scale, in line with the literature (Pasquali, 1998); the unifatorial nature of assertiveness (Teixeira, 2015) and appropriateness for the target group, so that the final version of the AAA-S contains 20 items, almost all of which have been identified with the highest level of relevance, pertinence, and clarity; thus confirming a consensus in the literature that indicates an average of 20 items as an appropriate number for a scale (Pasquali, 1998).

Another criterion for the reduction of the AAA-S items concerned the construct of assertiveness, which is highlighted as a class within social skills and whose study and measurement in a certain way indicates a multifactorial nature (Teixeira, 2015), where the reduction of the scale does not affect the main objective of the same or the extent of the characteristics indicated. Finally, the reduction of the number of items was considered as a point of appropriateness for the target group, since a smaller scale is one of the points that can favor the participation of adolescents and allows the use of the instrument in different contexts.

After reducing the scale by considering the most important indices among the items, as mentioned above, Table 1 contains all the CVC coefficients of the twenty items selected for the final version of the AAA-S.

After analyzing and discussing the proposal for the instrument in its 20-item version, the phase of identifying the evidence for the semantic validity of the items was carried out, thus completing the phases of the process of

Table 1
Coefficient of content validity for refined items

Items	CVC$_i$		
	Relevance	Pertinence	Clarity
1	1.00	1.00	1.00
2	1.00	1.00	1.00
3	1.00	1.00	1.00
4	1.00	1.00	1.00
5	1.00	1.00	1.00
6	1.00	1.00	1.00
7	1.00	1.00	1.00
8	1.00	1.00	1.00
9	1.00	1.00	1.00
10	1.00	1.00	1.00
11	1.00	1.00	1.00
12	1.00	1.00	1.00
13	1.00	0.88	0.88
14	1.00	1.00	1.00
15	1.00	1.00	1.00
16	0.81	0.81	0.81
17	1.00	0.94	1.00
18	1.00	1.00	0.88
19	1.00	1.00	1.00
20	1.00	1.00	0.94

Note. CVC$_i$ = Coefficient of Content Validity value for item.

identifying information relevant to the construction of an assessment instrument.

Step 3: Evidence of Semantic Validity

Another important step in this process of elaborating and validating the instrument relates to semantic validity, which aims to ensure the comprehensibility of the items. We conducted this analysis through studies with samples of the target population to verify that all facets of the construct are present in the instrument according to the participants' perceptions (Bandeira & Hutz, 2019).

Participants

A pilot study was conducted with a random sample in which the 20-item version of the AAA-S was administered to 22 adolescents aged 12 to 18 years ($M = 15.77$, $SD = 1.99$). Half of them were male, the other half female and most of them were private school students (54.5%), Brazilian, and residing in the state of Paraíba.

Instrument

To check the comprehensibility, clarity, and readability of the items by the target group using a 6-point Likert scale from 0 (*unclear and unreadable/no comprehension*) to 5 (*very clear and readable/total comprehension*), and thus make adjustments marked as relevant, participants were asked to respond on the scale according to their understanding of the items. If the adolescents found the item incomprehensible, they had the opportunity to report possible changes needed to make it semantically appropriate.

Procedure

The adolescents were contacted to participate in the study via invitations on social media (e.g., WhatsApp and Instagram). To those who were willing to participate in the study, we sent the online response form, which included the informed consent form (ICF) for both parents and adolescents, containing information about the purpose of the study and the voluntary nature of participation.

Data Analysis

For semantic validity analysis (comprehensibility of the items), we used the SPSS (Statistical Package for the Social Sciences) software, version 24.0. to calculate the median of the distribution of the data, considering values of median < 2.5 as a criterion for low semantic understanding of the participants concerning the items.

Results

When analyzing the comprehensibility of all items (i.e., semantic validity), we found good levels of comprehension ($M = 3.60$, $SD = 1.03$). We also observed the individual comprehensibility per item (Table 2).

Overall, considering the parameter of median scores > 2.5 for high comprehension indices, the results showed a general comprehensibility of the scale at 86.4%. A moderate and partially significant correlation was also observed between age and the level of comprehensibility of the adolescents at this stage ($r = 0.41$, $p = 0.05$).

Table 2
Individual comprehensibility by item

Items	M	SD
1. When my peers say something I do not agree with, I voice my opinion.	4.05	1.55
2. If I buy a new piece of clothing and find out at home that I do not like it, I come back to change it.	3.68	1.93
3. During a group outing, I can give my opinion about what we could do every day.	4.09	1.19
4. At school I have difficulty talking to the teacher.	1.95	2.25
5. In group situations I usually represent my group to make requests to the teacher.	3.55	1.92
6. I can argue when my parents ask me to do something I do not want to do.	4.32	1.42
7. I often get angry when my parents criticize my performance at school.	3.23	2.11
8. When someone says my taste in music is not good, I explain that we have different musical preferences.	4.00	1.69
9. When I like a classmate, I find it difficult to express my feelings.	3.18	2.01
10. I tend to be ironic with my colleagues.	3.23	1.85
11. I play games that lead to disappointing my friends.	2.45	2.15
12. I have difficulty maintaining friendships.	2.73	2.12
13. When I am unhappy in a relationship, I can take the initiative to end the relationship.	3.91	1.57
14. If I hurt a colleague, I apologize.	4.68	.78
15. Even when I know I am in the wrong, I avoid admitting my mistake.	2.82	2.13
16. In situations where my colleagues do something I do not like, I often say how I feel.	4.41	.95
17. If a classmate asks me to copy my notes during class, I borrow them even if it slows me down.	3.77	1.63
18. If I do not understand something the teacher has explained, I ask you to explain it again.	4.50	.85
19. If I must go to a place but I do not know how to get there, I prefer to look for it myself rather than ask someone for help.	3.64	1.73
20. If some classmates make noise in class and I feel uncomfortable, I ask for silence.	3.95	1.67

Note. M = Mean of comprehension (scale ranging from 0 = *no comprehension* to 5 = *total comprehension*). *SD* = standard deviation.

DISCUSSION

In this study, the focus group technique was considered very valuable for the elaboration of the items, to consider the reality and the specificities of the adolescents, the group for which the proposed instrument is intended. In this sense, the recommendation that it is important to ensure that the items express concrete behaviors and are understandable to the target population was followed (Borsa & Seize, 2017).

According to Pacico (2015), some criteria need to be considered when creating items to ensure their appropriateness and quality in measuring the construct. One concern was therefore to propose items in appropriate language that explore behaviors that are congruent with the construct and that cover the scope of the variable by addressing different questions/dimensions related to what is being studied.

To provide evidence of validity, it is necessary to analyze by assessing specialists in the field of the construct as well as a semantic analysis by the target group after defining the items (Pasquali, 1998). Following the relevant recommendations for demonstrating the validity of the AAA-S, after analyses that allowed the identification of evidence for content validity, and after references to studies on the construct of assertiveness, we elaborated the final version of the instrument that includes evidence for semantic validity. The results show that the items elaborated for the scale were found to be clear, relevant, and pertinent to cover all facets of the construct by the perception of the experts. Also, the selection of the 20 items that made up the final version of the scale favored accessibility for the target audience as well as the average time needed to use the scale.

The experts' analysis was important for the construction of the instrument and confirmed that the preliminary version had content validity, as the items remaining in each dimension had theoretical relevance. No difficulties were noted by the judges and the items had good concordance indices (e.g., CVC > .80). There were no suggestions for reformulations or observations that reflected the need to replace the items, confirming the impressions regarding the quality of the items to represent the target construct, which has a valid content as it considers the indices recommended by the reference considered in this study (Pasquali, 1998).

In terms of semantic analysis, as recommended, it was possible to observe that the target group of adolescents had some difficulties in understanding the items on the scale, indicating that they had difficulties in imagining the situations in the real context they experienced. Some peculiarities found in the target group in question, such as the partially significant correlation between age and the comprehension index, show that the older the audience was, the more comprehensible the item was, leading to the hypothesis of an influence of the development factor on the way participants understood the proposed items.

In their study, Papalia and Feldman (2013) observed that adolescents aged 11 to 13 years tended to emotionally and instinctively identify emotions (expressed through faces on a computer screen), while older adolescents aged 14 to 17 years tended to show more adult patterns through reasoning, judgment, emotional modulation, and impulse control. This study confirms the hypothesis that the possible difficulty in visualizing the situations proposed in the tasks in a real-life context is due to the different levels of understanding that adolescents may have at this stage of development. This result suggests that there is a need to develop an illustrated strategy for assessing assertiveness to symbolize the different situations playfully represented in the scale. This is the objective of the next study.

Study 2: Planning and Preparation of the AAA-S in its Illustrated Version

In this study, we proposed to transform the semantic items into a pictorial script through the graphical representation of the items' content to find more satisfactory indices for comprehensibility. The illustrated scale was designed to bring the actions expressed in the items close to the target audience playfully.

Petersen and Koller (2006) believe that using an instrument that presents itself as playful or fun can certainly be more attractive. In this sense, this format, which will be presented from now on, is expected to have a greater upswing among young people and a greater coherence in the answers.

In creating the illustrated version of the AAA-S, consideration was given to how best to present the items graphically, based on the results of Study 1, to promote understanding without influencing participants' responses.

Procedure

First, we selected two characters to represent a boy and a girl involved in the situations described in the items presented in the instrument. The names of two characters were chosen to be the focus of the scale: Alice and Dexter. These names were chosen because they symbolically refer to the idea of assertiveness in their meaning. According to Amaral and Seide (2020), the referential function of first names cannot be overstated, nor can their symbolic and representative value for a motivational reality. On this basis, following the *Dicionário de Nomes Próprios* (n.d.; Propper Names Dictionary), the meanings of the names representing the characters of the AAA-S were selected: Alice, meaning truthful, sincere, and Dexter, meaning skillful. The choice of names was a way of familiarizing the meaning of the names of the characters and the theme being worked on by illustrating them on the scale, as they are the main characters of the situations represented in the items of the AAA-S.

In the general formulation of the illustrated scale, an introductory text introducing the characters was written and then 20 panels were developed with pictures to go with the items and express the content addressed in the items. The models were sent to an illustrator along with descriptive instructions for the panels and all illustrations were subjected to evaluation by the authors. After evaluation, changes were requested from the illustrator, if necessary, until a final consensus was reached on the quality of the images depicted in each item.

Results

The panel of illustrations elaborated on AAA-S items is presented in Figures 1 and 2.

The steps described above led to the elaboration of a visual and playful tool for assessing the assertiveness of adolescents aged 12 to 18 years in a format where each item was presented on a board containing the situation described in the associated item. In this way, the instrument became more playful/attractive and could be better understood by the target group, which was a first step in the quest for validation.

Discussion

It is considered that the presentation of the illustrated version of the EHA-A can be an important strategy as a proposal for the assertiveness assessment tool for the adolescent audience, providing important support in the intervention proposals for this audience. In addition, proposing an illustrated version of the scale can bring the construct closer to the target audience and thus reduce the risk of misunderstanding the items that make up the instrument.
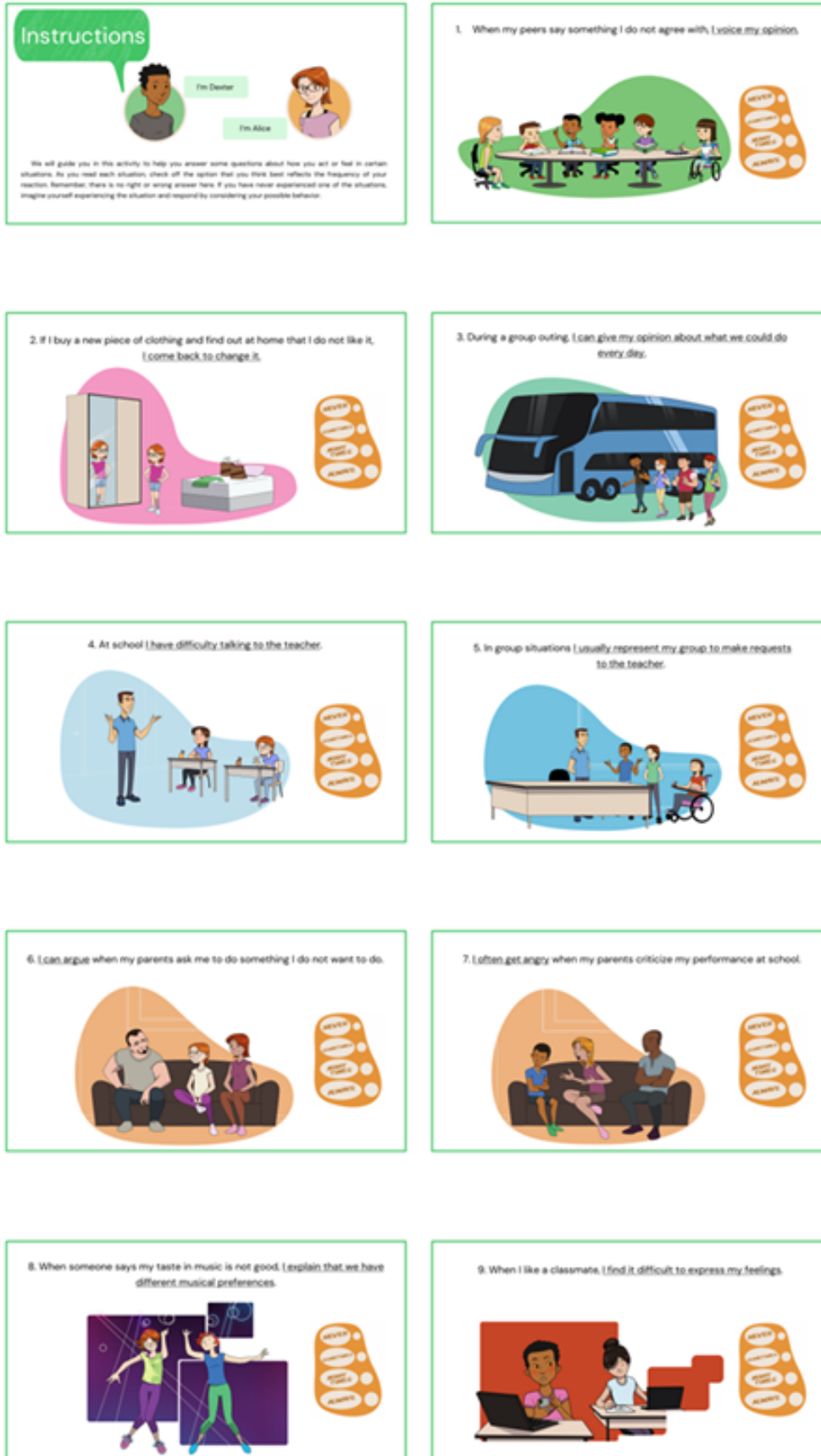
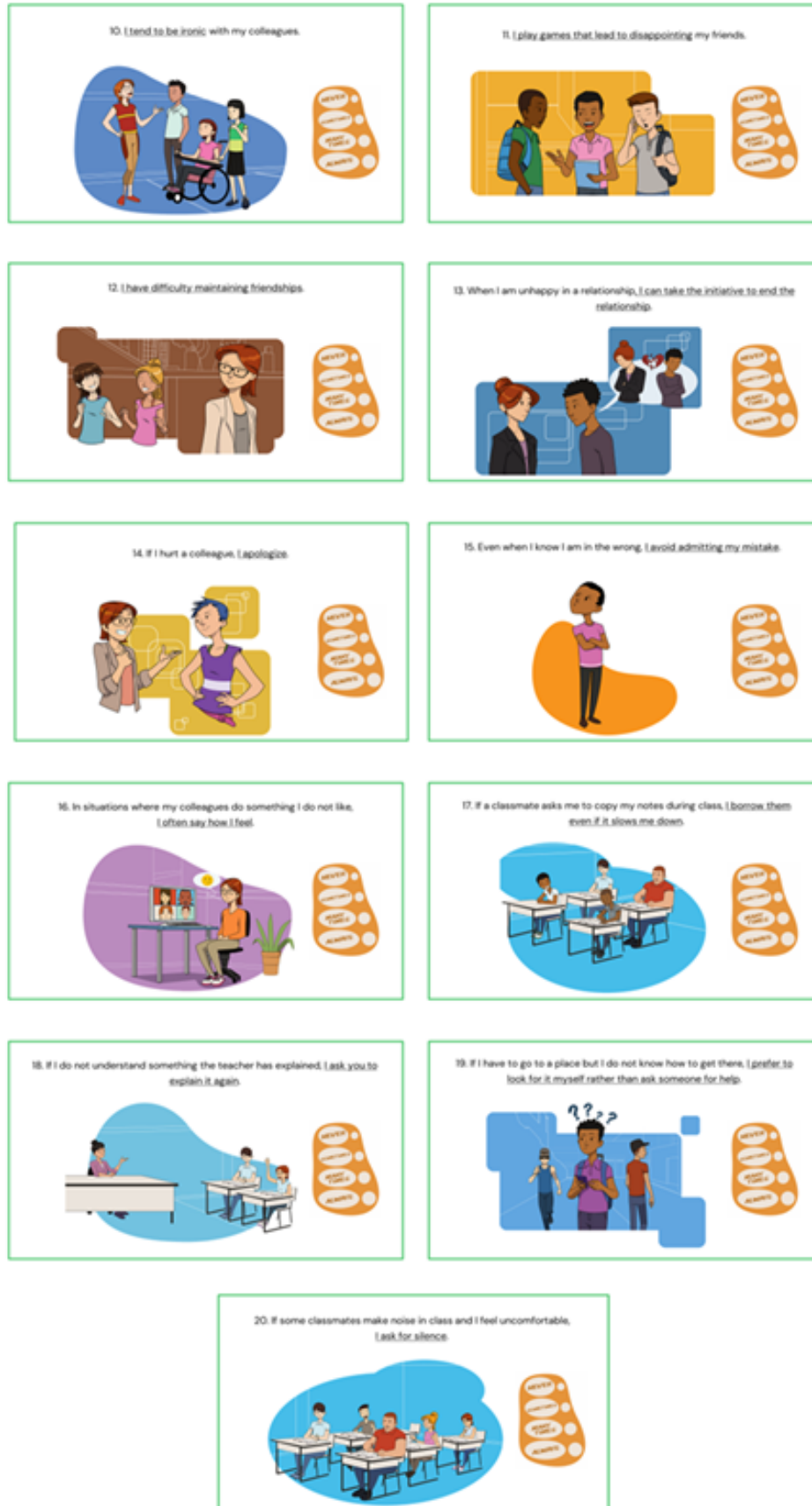**Figure 1.** *Pannell with scale instructions and items 01 to 09 of AAS-S*

Figure 2. *Pannell with items 10 to 20 of AAS-S*

GENERAL DISCUSSION

To assess the assertiveness of adolescents validly and accurately, we conducted two studies to show the process of development of the AAA-S and describe the steps that led to its final version, as well as the procedures used to gather the content validity and semantic validities of the scale. More specifically, we sought to investigate whether the set of items proposed to measure assertiveness in adolescence is clear, pertinent, and relevant enough to represent this construct.

Finding evidence of content validity is a fundamental step in the process of developing and validating a psychological instrument. According to the 2014 Standards for Educational and Psychological Testing (American Psychological Association [APA], 2014), content validity is one of the interrelated sources of construct validity (Koller et al., 2017). Content validity (Rossiter, 2008), which plays a primary role in the development of any new instrument (Rusticus, 2014), is defined as "the degree to which the items of an assessment instrument are relevant to a representative of the target construct for a particular assessment purpose" (Haynes et al., 1995, p. 238). It encompasses several aspects, such as the validity and representativeness of the construct definition, the clarity of the instructions, the linguistic aspects of the items, the representativeness, and the adequacy of the item pool for capturing the construct.

In this sense, content validity is a necessary condition for other aspects of construct validity, because an instrument whose items do not cover the full operational definition of a construct that is to be measured is unlikely to relate to other constructs or behavioral criteria, which are the most recommended parameters to ensure evidence of construct validity of a measure (APA, 2014). In our studies, we empirically demonstrated that the AAA-S has good content validity indices, as it was judged by a group of specialists in the field to be clear, relevant, and representative of the definition of assertiveness.

The construction of the AAA-S made it possible to illustrate the relevant steps and procedures in the elaboration of an assessment instrument, thus confirming the relevance of each stage described by Borsa and Seize (2017) for the construction of a new psychological measure that is specific and unprecedented, considering its need in the national context for which it is intended. Given the importance and need of the proposal presented, the elaboration of the AAA-S presented itself as an innovative proposal for assessment for the adolescent public, stimulating discussion on the relevance of presenting instruments in an attractive format, thus favoring greater interest and participation in the execution of the tasks set.

A study conducted by Rich (2014), aimed to explore the relationships between verbal and non-verbal language with adolescents aged 12 to 15 years with different levels of difficulty with the written code, and found that they rely on visual language as a stimulus for reading and understanding the text, and that visual language is an aid to understanding verbal language.

The development of the illustrated version of the AAA-S based on the content analysis and semantic analysis resulted in an excellent coefficient of overall validity and validity by item, which shows the degree of representativeness of the instrument concerning the construct of assertiveness. Given the semantic analysis results, we also hypothesized that the age of the target group could be a factor moderating adolescents' understanding of the items, considering that the brain structures involved in emotions, judgment, behavioral organization, and self-control change precisely between puberty and early adulthood (Papalia & Feldman, 2013). Given the possible relationship between age and comprehensibility of the items, it therefore stands to reason those younger adolescents had greater difficulty understanding the items related to need.

In Brazil, only three specific scales for measuring assertiveness have been found so far that cover the context of adolescence (Simeão et al., 2021), but none of them are available in an illustrated format, which is why the present work to produce the AAA-S in the illustrated version is justified. Given this gap, it is argued that the construction of the illustrated AAA-S (Study 2) not only favors scores that are more reliably responsive to the responses of the target group, but also contributes to empirical and conceptual advances around social skills and, in particular, assertiveness, as the adolescent population needs to seek means to better understand the instrument.

FINAL CONSIDERATIONS

Despite the obvious importance of evaluation tools to guide research and intervention programs, there are still few valid measures for the specific evaluation of assertiveness in adolescence, which points to an existing gap and the urgency to think about possible strategies to help identify adolescents' repertoire of assertive skills. Therefore, the development of AAA-S is presented as a resource with promising results, signaling that it is a tool with satisfactory characteristics for use with the youth public.

One of the contributions of this study was to present the possibility of an instrument constructed for the Brazilian context, where each item proposed was based on both theoretical issues and the perceptions and discourse of the group of adolescents, which allowed a better representation

of the response styles and behaviors associated with the construct in the daily lives of adolescents. From the above, it was possible to better consider cultural aspects and specific factors of the reality experienced by young people.

Regarding the construction process and the semantic and content validation, positive results were achieved in the first phases of validation in this study. In addition, the scale was proposed as a pioneer (in terms of topic and target group) in the Brazilian context, which will be of great importance in future applications. The results found show strong evidence of content and semantic validity and confirm the need to continue validation studies of the AAA-S so that, once validated, it can be used in research to assess assertiveness in the adolescent public and serve as a parameter for studies related to the construct under study.

In the same vein, the instrument can also be used as an evaluation measure for assertiveness training programs. Considering that assertiveness is a variable that plays an important role in human development, in the acquisition of socio-emotional skills, and in the maintenance of mental health, the use of an instrument developed and validated in a context as specific as Brazil may represent an innovative way for studies on this construct. Therefore, the results

of this study may have direct implications for theoretical approaches to social skills, since it targets a social group that is difficult to access and has different identity characteristics, namely adolescents.

Although we acknowledge the strengths of our study, it is necessary to shed light on some limitations. The hall of limitations includes the difficulty in accessing participants and the impossibility of conducting data collection in person due to the pandemic context by Covid-19, the low support of participants in the online survey due to the specificity of the audience (adolescents aged 12 to 18 years), and the impossibility of reaching the number of participants that would allow other important psychometric analyses to be conducted when proposing an instrument.

To overcome the limitations pointed out, we suggested the conduct of follow-up studies with the AAA-S to carry out empirical procedures aimed at observing evidence of the factorial validity of the instrument as well as the analysis of its relationship with other variables. Furthermore, we pointed out the need to verify the reliability of the proposed instrument, in addition to its factorial validity, as these are essential elements to ensure the quality of the measurement and the results obtained from its use.

REFERENCES

Aiken, L. R. (1985). Three coefficients for analyzing the reliability and validity of ratings. *Educational and Psychological Measurement, 45*(1), 131– 142. https://doi.org/10.1177/0013164485451012

Alberti, R. E., & Emmons, M. L. (1978). *Comportamento assertivo: Um guia de auto-expressão* (2. ed). Interlivros (Original work published in 1970).

Aliane, P. P., Lourenço, L. M., & Ronzani, T. M. (2006). Comparative study of social skills among alcohol abusers and non abusers. *Psicologia em Estudo*, *11*(1), 83-88. https://doi.org/10.1590/S1413-73722006000100010

Amaral, E. T. R., & Seide, M. S. (2020). *Nomes próprios de pessoa: Introdução à antroponímia brasileira* [Proper names of persons: Introduction to Brazilian anthroponymy]. Blucher.

American Psychological Association. (2014). *Standards for Educational and Psychological Testing*. American Educational Research Association.

Assumpção, A. A., Teodoro, M., Maltoni, J., & Neufeld, C. B. (2017). A perspectiva adolescente na teoria cognitiva de Beck [The adolescent perspective in Beck's cognitive theory]. In C. B. Nelfeld (Org.), *Terapia Cognitivo-Comportamental para Adolescentes: Uma Perspectiva Transdiagnóstica e Desenvolvimental* [Cognitive-Behavioral Therapy for Adolescents: A Transdiagnostic and Developmental Perspective] (pp. 29-41). Artmed.

Bandeira, D. R., & Hutz, C. S. (2019). Elaboração ou adaptação de instrumentos de avaliação psicológica para o contexto organizacional e do trabalho: Cuidados psicométricos [Development or adaptation of psychological assessment instruments for the organizational and work context: Psychometric considerations]. In C. S. Hutz, D. R. Bandeira, C. M. Trentini, & A. C. S. Vasquez (Orgs.), *Avaliação Psicológica no Contexto Organizacional e do Trabalho* [Psychological Assessment in the Organizational and Work Context] (pp. 13-18). Artmed.

Backes, D. S., Colomé, J. S., Erdmann R. H., & Lunardi, V. L. (2011). The focal group as a technique for data collection and analysis in qualitative research. *O Mundo da Saúde, 35*(4), 438-442. https://doi.org/10.15343/0104-7809.2011354438442

Bardin, L. (1977). *Análise de conteúdo* [Content analysis]. Edições 70.

Borsa, J. C, & Seize, M. M. (2017). Construção e adaptação de instrumentos psicológicos: Dois caminhos possíveis [Construction and adaptation of psychological instruments: Two possible paths]. In B. F. Damásio & J. C. Borsa (Orgs.), *Manual de Desenvolvimento de Instrumentos Psicológicos* [Manual for the development of psychological instruments] (pp. 15-37). Vetor.

Brandão, F. S, & Derdyk, P. R. (2007). Comportamento assertivo: Um guia para jovens [Assertive behavior: A guide for young people]. In F. C. S. Conte & M. Z. S. Brandão (Orgs.), *Falo? Ou não falo? Expressando Sentimentos e Comunicando Ideias* [Do I speak? Or don't I? Expressing Feelings and Communicating Ideas] (2. ed., pp. 175-180). Mecenas.

Campos, J. R., Del Prette, A., & Del Prette Z. A. P. (2014). Depression in adolescence: Social skills and sociodemographic variables as risk factors/protection. *Estudos e Pesquisas em Psicologia*, *14*(2), 408-428. http://pepsic.bvsalud.org/pdf/epp/v14n2/v14n2a03.pdf

Del Prette, Z. A. P., & Del Prette, A. (2005). *Psicologia das habilidades sociais na infância: Teoria e prática* [Psychology of social skills in childhood: Theory and practice]. Vozes.

Del Prette, Z., & Del Prette, A. (2009). *Psicologia das habilidades sociais: Terapia, educação e trabalho* [Social skills psychology: Therapy, education and work] (6. ed). Vozes.

Del Prette, Z., Dias, T. P., & Del Prette, A. (2017). Habilidades sociais assertivas [Assertive social skills]. In: Z. A. P. Del Prette & A. Del Prette (Orgs.), *Habilidades Sociais e Competência Social para uma Vida Melhor* [Social Skills and Social Competence for a Better Life] (pp. 69-81). EdUFScar.

Del Prette, Z. A., Ferreira, B. C., Dias, T. P., & Del Prette, A. (2015). Habilidades sociais ao longo do desenvolvimento: Perspectivas de intervenção saúde mental [Social skills throughout development: Perspectives for mental health intervention]. In S. G. Murta, C. Leandro-França, K. B. Santos & L. Polejack (Orgs.), *Prevenção e Promoção em Saúde Mental: Fundamentos, Planejamento e Estratégias de Intervenção* [Prevention and Promotion in Mental Health: Fundamentals, Planning and Intervention Strategies] (pp. 318-340). Sinopsys.

Dicionário de Nomes Próprios. (n. d.). *Alice e Dexter*. https://www.dicionariodenomesproprios.com.br/

Eslami, A. A., Rabiei, L., Afzali, S. M., Hamidizadeh, S., & Masoudi, R. (2016). The effectiveness of assertiveness training of the levels of stress, axiety and depression of high school students. *Iranian Red Crescent Medical Journal*, *18*(1). https://doi.org/10.5812/ircmj.21096

Fernandes, C. S, Falcone, E. M. O., & Sardinha, A. (2012). Social skills deficts in depression: A comparative study. *Psicologia: Teoria e Prática*, *14*(1), 183-196. http://pepsic.bvsalud.org/scielo.php?script=sci_abstract&pid=S1516-36872012000100014&lng=pt&nrm=iso

González Fragoso, C., Guevara Benitez, Y., Jiménez Rodríguez, D., & Alcázar Olán, R. J. (2018). Relationship between assertiveness, academic performance and anxiety in a sample of Mexican students in secondary. *Acta Colombiana de Psicología*, *21*(1), 116-127. http://doi.org/10.14718/ACP.2018.21.1.6

Haynes, S. N., Richard, D. C. S., & Kubany, E. S. (1995). Content validity in psychological assessment: A functional approach to concepts and methods. *Psychological Assessment, 7*(3), 238–247. https://doi.org/10.1037/1040-3590.7.3.238

Hutz, C. S, Bandeira, D. R., & Trentini, C. M. (2015). *Psychometrics*. Artmed.

Koller, I., Levenson, M. R., & Glück, J. (2017). What do you think you are measuring? A mixed-methods procedure for assessing the content validity of test items and theory-based scaling. *Frontiers in Psychology, 8*(126), 1-20. https://doi.org/10.3389/fpsyg.2017.00126

Lange, A. J., & Jakubowski, P. (1976). *Responsible assertive behavior*. Research Press.

Lima, D. P., & Carvalho, M. V. (2020). Treinamento em habilidades sociais: Uma intervenção clínica [Social skills training: A clinical intervention]. *Psicologia em Ênfase, 1(1)*, 70-86. https://ojs.unialfa.com.br/index.php/psicologiaemenfase/article/view/55

Luz, J. M. O., Murta, S. G. & Aquino, T. A. A. (2015). Programas de promoção de saúde mental em grupos para adolescente [Group mental health promotion programs for adolescents]. In C. B. Neufeuld (Org.), *Terapia Cognitivo Comportamental em Grupo para Crianças e Adolescentes* [Cognitive Behavioral Group Therapy for Children and Adolescents]. Artmed.

Maia, D. S., & Bortolini, M. (2012). The development of assertiveness ability and interaction in school: Experience report. *Psicologia em Revista*, *18*(3), 373-388. http://dx.doi.org/10.5752/P.1678-9563.2012v18n3p373

Marchezini-Cunha, V., & Tourinho, E. Z. (2010). Assertiveness and self-control: A behavior-analytic interpretation. *Psicologia: Teoria e Pesquisa*, *26*(2), 295-304. https://doi.org/10.1590/S0102-37722010000200011

Martins, V. (2017). *Seja assertivo! Como ser direto, objetivo e fazer o que tem de ser feito: Como construir relacionamentos saudáveis usando a assertividade* [Be assertive! How to be direct, objective and do what needs to be done: How to build healthy relationships using assertiveness]. Alta Books.

Murta, S. G., & Marinho, T. P. C. (2009). The extended clinic and the social assistance politics: An experience with teenagers in the Program of Comprehensive Attention to the Family. *Revista Eletrônica de Psicologia e Políticas Públicas, 1*(1),

58-72. http://www.crp09.org.br/portal/images/links/repsipp/v1n1a4-abstract.pdf

Neto, F. L., & Savoia, M. G. (2007). Dificuldades na expressão de opiniões e sentimentos: Quem não se expressa fica doente? [Difficulties in expressing opinions and feelings: Do people who don't express themselves get sick?]. In F. C. S. Conte & M. Z. S. Brandão (Orgs.), *Falo? Ou não falo? Expressando sentimentos e comunicando ideias* [Do I speak? Or don't I? Expressing feelings and communicating ideas] (2. ed., pp. 175-180). Mecenas.

Pacico, J. C. (2015). Como é feito um teste? Produção de itens [How is a test done? Production of items]. In C. S. Hutz, D. R. Bandeira, & Trentini, C. M. (Orgs.), *Psicometria* [Psychometrics]. Artmed.

Papalia, D. E., & Feldman, R. D. (2013). *Desenvolvimento humano* [Human development] (12. ed.)*. AMGH.

Pasquali, L. (1998). Princípios de elaboração de escalas psicológicas [Principles of developing psychological scales]. *Revista de Psiquiatria Clínica, 25*(5), 206-213.

Petersen, C. S., & Koller, S. H. (2006). Avaliação psicológica em crianças e adolescentes em situação de risco [Psychological assessment of at risk children and adolescents]. *Avaliação Psicológica, 5*(1), 55-66. http://pepsic.bvsalud.org/scielo.php?script=sci_arttext&pid=S1677-04712006000100007

Reppold, C. T., Serafini, A. J., Ramires, D. A., & Gurgel, L. G. (2017). Analysis of psychological manuals approved by SATEPSI for assessment of children and adolescents in Brazil. *Avaliação Psicológica, 16*(1), 19-28. https://doi.org/10.15689/ap.2017.1601.03

Rich, R. M. C. (2014, 4-6 set.). Texto e ilustrações: A produção de sentidos da leitura [Text and illustrations: The production of meanings from reading]. *IX Simpósio Educação e Sociedade Contemporânea*. CAp-UERJ.

Rossiter, J. R. (2008). Content validity of measures of abstract constructs in management and organizational research. *British Journal of Management, 19*(4), 380–388. https://doi.org/10.1111/j.1467-8551.2008.00587.x

Rusticus, S. (2014). Content validity. In A. C. Michalos (Eds.), *Encyclopedia of Quality of Life and Well-Being Research* (pp. 1261-1262). Springer. https://doi.org/10.1007/978-94-007-0753-5_553

Sartes, L. M. A., & Araujo, R. B. (2017). Uso e abuso de substâncias [Substance use and abuse]. In C. B. Nelfeld (Org.), *Terapia Cognitivo-Comportamental para Adolescentes: Uma Perspectiva Transdiagnóstica e Desenvolvimental* [Cognitive-Behavioral Therapy for Adolescents: A Transdiagnostic and Developmental Perspective] (pp. 134-149). Artmed.

Silva, M. P., & Murta, S. G. (2009). Social skills training for adolescents: An experience in the program of comprehensive attention to the family. *Psicologia: Reflexão e Crítica*, *22*(1), 136-143. https://doi.org/10.1590/S0102-79722009000100018

Simeão, S. S. S., Pessoa, G. N., Lima, A. V. C., & Sales, J. B. L. (2021). Avaliação da assertividade no contexto da adolescência: Principais instrumentos [Assessing assertiveness in the context of adolescence: Main instruments]. In W. A. D. Silva, S. S. S. Simeão & A. A. G. Barbosa (Orgs.), *Avaliação psicológica: Construções, saberes e aplicações* [Psychological assessment: Constructions, knowledge and applications] (pp.61-72). UFPB.

Strasburger, V., Wilson, B. J., & Jordan, A. B. (2009). *Children, adolescents, and the media*. SAGE.

Tallamini, E. Z., Patias, N. D., Ferreira, V. R. T., & Wagner, M. F. (2022). Social skills training in the school context: Systematic review. *Estudos e Pesquisas em Psicologia, 22*(1), 147-163. https://doi.org/10.12957/epp.2022.66484

Teixeira, C. M. (2015). *Assertividade: Escala multimodal e caracterização do repertório de mulheres inseridas no mercado de trabalho* [Assertiveness: Multimodal scale and characterization of the repertoire of women in the job market; Doctoral Thesis, Universidade Federal de São Carlos].

Repositório Institucional UFSCar. https://repositorio.ufscar. br/handle/ufscar/7238

Tomas, A. C. T., & Carvalho, M. R. (2014). Assertive training for depression: A literature review. *Revista Brasileira de Terapias Cognitivas*, *10*(2), 103-111. http://dx.doi.org/10.5935/1808-5687.20140016

Trad, L. A. B. (2009). Focal groups: Concepts, procedures and reflections based on practical experiences of research works in the health area. *Physis Revista de Saúde Coletiva*, *19*(3), 777-796. https://doi.org/10.1590/S0103-73312009000300013

Vagos, P. E. R. M. (2010). *Ansiedade social e assertividade na adolescência* [Social anxiety and assertiveness in adolescence; Doctorate Thesis, Universidade de Aveiro]. Universidade de Aveiro. https://ria.ua.pt/handle/10773/3819

Vasconcelos, F. C. (2014). Articulações entre o texto escrito e as ilustrações na Literatura Infantil: Repercussões sobre a efetivação da leitura [Articulations between written text and illustrations in Children's Literature: Repercussions on the effectiveness of reading]. *Anais V ENLIJE, Ensino de Literatura e Políticas Públicas de Formação de Leitores*. https://www.editorarealize.com.br/editora/anais/enlije/2014/Modalidade_1datahora_30_04_2014_12_10_36_idinscrito_107_996d3777408441155a24c3be0b24701e.pdf

Véronneau, M., Trempe, S., & Paiva, A. O. (2014). Risk and protection factors in the peer context: How do other children contribute to the psychosocial adjustment of the adolescent? *Ciência & Saúde Coletiva, 19*(3), 695-705. https://doi.org/10.1590/1413-81232014193.17972013